EQIP Activity Sheet: *EAS590-3*
Nutrient Management with Split Nitrogen Applications

Minimum Criteria to Qualify for the Nutrient Management with Split Nitrogen Applications Incentive

Purpose: To more effectively match nitrogen availability to crop uptake by reapportioning nitrogen inputs using split applications. A split application divides the total nitrogen recommendation into two or more separate application events to synchronize application events with times of more active uptake by crops.

Note: This incentive applies only on tracts having no fields where split applications of nitrogen have been made prior to signing a contract.

General Criteria that Apply to All Crops:

- Incentive payment applies only to acres where the planned crop rotation includes crops that require nitrogen applications (e.g., corn, grain sorghum (milo), cotton, wheat, rice, and forages).
- All nitrogen recommendations must be from an approved soil test lab. A list of approved labs can be found at: http://soilplantlab.missouri.edu/soil/mstacertified.htm or contact your local NRCS office.
- All recommendations must be based on realistic yield goals. Realistic yield goals shall be based on these criteria:
  - Actual yield data collected from the field for five (5) or more years. Ignore highest and lowest years and calculate mean of the remaining three. Add 10 percent to the mean yield to allow for potential to improve yield.
  - Crop yield estimates from county soil survey adjusted by soil-based crop productivity indices. Crop productivity indices can be found in "Productivity of Missouri Soils", published by NRCS.
  - County average yield data collected by the National Agricultural Statistics Service.

Specific Criteria that Apply for Grain Crops and Cotton:

- Split applications shall comprise no more than 50% of the annual nitrogen recommendation **preplant or at planting** with the remainder applied any time **after the crop is established**. Preplant applications must be made no more than one month before the estimated planting date to avoid early-season losses.
- "After the crop is established" is defined as:
  - 4^{th} – 6^{th} leaf stage for corn or grain sorghum (milo).
  - Before jointing for wheat.
  - At first square (5^{th} or 6^{th} node) for cotton.
  - At the beginning jointing period for rice. Follow guidance provided by the Missouri Rice Degree Day 50 (DD-50) website (http://agebb.missouri.edu/rice/ricemodel.htm).
- Wheat:
  - No more than 40 pounds of N will be applied preplant or at planting with the remainder of the N applied before jointing (late February – early April).
- Fall applications of anhydrous ammonia for a spring-seeded crop do not qualify as preplant applications.
- Nitrogen from all sources will be credited when calculating total N to apply. Any nitrogen applied in phosphorous fertilizers such as MAP and DAP must be deducted from preplant nitrogen applications, and must be included in the nutrient budget.

- Use of a urease or nitrification inhibitor or controlled-release fertilizer applied preplant or at planting does not replace the split application of nitrogen after the crop is established.
- Nitrogen from previous legume crops shall be included in the nutrient budget and shall be deducted from the amounts of nitrogen required.

Specific Criteria that Apply for Perennial Forages:

The annual maximum nitrogen application shall not exceed the nitrogen recommendation based on yield goal and soil test guidelines.

- Cool-season forages
  - Smooth Bromegrass
    - Hayland: Apply 50 lb N/acre in early spring (generally March to mid-April). Apply remainder of recommended N after first hay harvest.
    - Pasture: Apply 50 lbs N/acre following first grazing. Apply remainder of recommended nitrogen between Aug. 1 and August 15 for fall pasture.
  - Orchardgrass
    - Hayland: Apply 50 lb N/acre in early spring (generally March to mid-April). Apply remainder of recommended N after first hay harvest.
    - Pasture: Apply 50 lbs N/acre after first grazing. Apply 50 lbs N/acre after second grazing, if conditions permit. Apply remainder of recommended nitrogen between Aug. 1 and August 15 for fall pasture.
  - Reed Canarygrass
    - Hayland: Apply 50 lb N/acre in early spring (generally March to mid-April). Apply remainder of recommended N after first hay harvest.
    - Pasture: Apply 50 lbs N/acre after first grazing. Apply remainder of N after second grazing, or when conditions permit.
  - Tall Fescue
    - Hayland: Apply 50 lb N/acre in early spring (generally March to mid-April). Apply remainder of recommended N after first hay harvest.
    - Pasture: Apply 50 lbs N/acre after first grazing. Apply 50 lbs N/acre after second grazing, if conditions permit. Apply remainder of recommended nitrogen between Aug. 1 and August 15 for fall pasture.
- The split-application incentive for nitrogen does not apply for warm-season grass forages.

Documentation Required:

- Receipts for amounts of all nitrogen fertilizers purchased and applied.
- Tracts, acres, form of N fertilizer, dates of application, and observed crop stage on which nitrogen fertilizers were applied.
- Certification that requirements of the Nutrient Management (590) conservation practice standard were achieved. The individual certifying completion of the practices required by this incentive must complete and sign the MO-CONS-10 (http://www.mo.nrcs.usda.gov/technical/forms/general.html) or an equivalent form.

For additional information contact your local USDA Service Center.